RCRA FACILITY ASSESSMENT EVALUATION

PRELIMINARY REVIEW, VISUAL SITE INSPECTION AND SAMPLING VISIT

Region VI, Technical Compliance Section

FACILITY'S NAME(S): GNB Batteries, Inc.

EPA ID NUMBER: TXD006451090

ADDRESS: P.O. Box 250 Frisco, Texas 75034

LOCATION: 7471 South 5th Street Frisco, Texas

DATE OF INSPECTION: 10/8/87

DATE OF SAMPLING VISIT: 10/8/87 SV CONDUCTED BY: TWC

SITE DESCRIPTION: Lead battery recycling plant

PREPARED BY: TWC DATE PREPARED: 12/1/87

REVIEWED BY: Bobby Williams DATE REVIEWED: 12/28/87

ANTICIPATED DRAFT PERMIT DATE: 12/30/87

FACILITY STATUS: Active LD

ANY ON-GOING STATE/FED 264, 265, or 270 CORRECTIVE ACTION OR CERCLA ACTION: Yes March 17, 1987. Three waste piles (SWMUs 07, 08 and 09) are closing by TWC agreed order.

DOES FACILITY HAVE A CERCLA FILE? YES X NO ____

When was the CERCLA PA/SI performed at this facility: May 9, 1984

DOES FACILITY HAVE UIC WELL? YES ____ NO X

TYPE: ____

TYPE OF DRINKING WATER SUPPLY WITHIN A 3-MILE RADIUS: City Water

TARGET POPULATION WITHIN A 3-MILE RADIUS: Town of Frisco, Texas (Approximately 4,400).

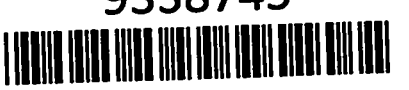
RECOMMENDATIONS: X R.F.I. ____ I.M. ____ No Further Action under RFA

(Indicate only one unless I.M. is marked)

X 3004(u) ____ 3007

Possible Enforcement Action: ____ 3008(a) ____ 3008(h)

Form Rev. 10/6/87



A. NUMBER OF SWMU(s)/AOC(s) INVESTIGATED DURING THE PR/VSI: 11

1. NUMBER OF SWMU(s) INVESTIGATED DURING THE PR/VSI: 11

LIST OF SWMU	REGULATED BY RCRA* (SUBTITLE C)	STATUS**
1) Container Storage Area (SWMU 01)	Y	A
2) Raw Material Storage Bldg. (SWMU 02)	Y	A
3) Outside Raw Material Storage Bldg. (SWMU 03)	Y	A
4) Slag Landfill (SWMU 04)	N	A
5) North Disposal Area (SWMU 05)	N	I
6) South Disposal Area (SWMU 06)	N	I
7) Product Waste Piles (SWMU 07)	Y	I
8) Wastewater Pretreatment Unit (SWMU 08)	N	A
9) Stewart Creek (SWMU 09)	N	I
10) Old Drum Storage Area (SWMU 10)	N	I
11) Stewart Creek Sediment Dredging Waste Pile (SWMU 11)	N	I

2. AREA(s) OF CONCERN: 0

* Y-Yes, N-No
** Active, Inactive, Closed (A, I, & C)

. SAMPLING VISIT

SWMU OR AOC	SAMPLING LOCATION	SAMPLE/MEDIA	SAMPLE TYPE (GRAB, COMPOSITE, ETC)	PARAMETERS	RESULTS
SWMU 09	Stewart Creek	IN17443/Sediment	Grab		EP Tox Pb 9,650 ug/l EP Tox Cd 125 ug/l

C. NUMBER SWMU(s) TO BE INCLUDED IN THE RFI: 9

1. NUMBER OF SWMU(s) AT WHICH RELEASES HAVE BEEN IDENTIFIED: 3

LIST OF SWMU	RELEASE TO	NOTED DOCUMENTATION OF RELEASE
1) North Disposal Area (SWMU 05)	Soil, GW, SW	The unit is a below grade landfill that managed battery case chips, iron oxide slag, and municipal refuse. It is contructed with in situ clay below grade and disturbed and recompacted clay above grade. The cap is at least two feet thick and seeded with bermuda and winter rye grasses. Battery case chips are surfacing through the cap. Four groundwater monitoring wells indicate that a release of lead and cadmium to groundwater has occurred from the unit. Soil dredgings of contaminated sediments from Stewart Creek were piled onto this unit. EP toxic lead may threaten surface water. The groundwater monitoring system appears to be inadequate for the unit. A concrete sump collects leachate from the unit and discharges into Stewart Creek. The leachate is contaminated with lead and cadmium (0.05 ug/ml Cd; 0.3 ug/ml Pb; pH 7.7) according to a sample taken 1/6/87.
2) South Disposal Area (SWMU 06)	Soil, GW	The landfill was used to dispose of battery chips and iron oxide. The unit is capped with 1.5 feet to 5 feet of compacted native clay and seeded with bermuda grass. Battery case chips are surfacing in the landfill. Five groundwater monitoring wells surround the unit. Lead and cadmium releases to the groundwater appear to have occurred from the landfill. The groundwater monitoring system appears to be inadequate for the unit.
3) Stewart Creek (SWMU 09)	Soil, SW	The creek received lead and cadmium contaminated stormwater. On January 6, 1987, samples of rainwater were analyzed showing 0.09 ug/ml to 0.21 ug/ml Cd; 4.7 ug/ml to 13.4 ug/ml Pb; and 6.5 to 6.6 pH. TWC issued an Agreed Order on March 17, 1987,

LIST OF SWMU	RELEASE TO	NOTED DOCUMENTATION OF RELEASE
		for the removal of contaminated sediments from the creek. A sediment sample taken September 17, 1987, IN 17443, shows EP Tox Pb 9,650 ug/l and EP Tox Cd 125 ug/l. During the VSI, the stream was noted to be reddish brown from iron oxide slag.

2. NUMBER OF SWMU AT WHICH A RELEASE IS HIGHLY POSSIBLE: 4

LIST OF SWMU	MEDIA	RATIONALE
1) Container Storage Area (SWMU 01)	Soil, SW	The unit is an 8 inch thick concrete pad with a 14 inch concrete curb on the southwest and northeast boundaries. The pad is not covered. Stormwater run on controls do not exist at this unit. During the VSI, spent battery casings were observed to be damaged and open and many of them were stored off the pad on bare soil. The concrete pad is exposed to sulfuric acid leaking from the batteries.
2) Raw Material Storage Bldg. (SWMU 02)	Air	Flue dust, recycled components salvaged from battery breaking operation, and miscellaneous containerized lead wastes are located inside the enclosed building that has a concrete floor and a ten foot high concrete wall. A six foot steel extension is built above the concrete wall. TWC notified the company on October 7, 1987 that the waste streams managed in this unit are considered to be "commodity-like" and are exempt from RCRA permitting standards. Lead-contaminated particulate material may be blown from the building through the west entrance.

3) Slag Landfill (SWMU 04)	Soil, GW, SW	The landfill is below grade and manages iron oxide slag. It is currently 1/3 acre but expansion to 4.2 acres is planned. The unit will expand into a drainage with intermittent water flow and be adjacent to an inactive municipal landfill. Sample analyses of slag deposited in the unit between December 1980 and December 1985 were very variable with concentrations of lead ranging from non-detectable levels to 4.1 ppm. The landfill has the potential for groundwater contamination once it is expanded because of the possibility of acetic acid and citric acid leaching into the slag waste from the municipal landfill. Waste slag is surfacing through the soil cover in some areas of the unit.
4) Product Waste Piles (SWMU 07)	Soil, SW	The waste piles were used to store battery chips and battery cases, which contained lead and cadmium. The waste piles were located on an above grade concrete surface. It appears that the stormwater containment system was inefficient to contain large storms and releases have occurred into Stewart Creek, resulting in the dredging of the creek.

3. NUMBER OF SWMU WHERE A DETERMINATION OF RELEASE CAN NOT BE MADE DUE TO LACK OF INFORMATION: 2

LIST OF SWMU	RATIONALE
1) Old Drum Storage Area (SWMU 10)	The unit was approximately 1/4 acre and it does not have any containment features. The area stored lead contaminated empty containers which collected stormwater. The water was disposed in the drum storage area. The company removed contaminated soil to a depth of four feet in an 1/4 acre area and they stated that no contaminated soil remains. Battery chips were noted to be on the surface during the VSI. Two soil samples were collected during the VSI, however the results of the samples have not been received.
2) Stewart Creek Sediment Dredging Waste Pile (SWMU 11)	The unit is approximately 1/2 acre in size and is located on the closed North Disposal Area (SWMU 05). The waste pile contains lead contaminated sediments from Stewart Creek (SWMU 09). The waste pile is about ten feet high and it is not capped. No dikes are located at this unit. The company has submitted analytical data from the waste pile and has requested that the waste be classified as a Class III waste. The unit has EP Toxic lead in it. Split sampling of the material will be conducted for waste characterization by December 15, 1987.

D. NUMBER OF SWMU FOR WHICH AND RFI IS NOT RECOMMENDED: 2

LIST OF SWMU	RATIONALE
1) Outside Raw Material Storage Bldg. (SWMU 03)	The unit is a concrete slab bounded on three sides by six foot concrete walls. A four inch concrete berm is located along the 4th side of the unit. A roof to prevent rainfall from entering the unit and a dike system to contain stormwater are being constructed. The unit manages recyclable lead plates, lead oxide paste, and lugs. TWC considers this unit to manage "commodity-like" waste streams and notified the company that the unit was exempt from RCRA permitting standards. No evidence of releases was observed during the VSI.
2) Wastewater Pretreatment Unit (SWMU 08)	The unit consists of open-top stainless steel tanks below grade and on ground. The tanks contain lead, cadmium, and sulfuric acid. A roof protects the tanks from stormwater and a concrete secondary containment system surrounds the unit. The facility has changed treatment methods in accordance with TWC's agreed order of March 17, 1987. No evidence of release was noted during the VSI.

E. SUPPLEMENTAL INFORMATION ON RCRA REGULATED UNITS: 0
(Describe any problems identified or suspected from regulated units including identified releases to groundwater)

II. FINDINGS

A. RECOMMENDATIONS:

STATE

a) SWMUs WHICH HAVE NOT HAD A RELEASE

1) Outside Raw Material Storage Bldg. (SWMU 03)
2) Product Waste Piles (SWMU 07)
3) Wastewater Pretreatment Unit (SWMU 08)

b) SWMUs WHICH REQUIRE FURTHER EVALUATION

1) Slag Landfill (SWMU 04)
2) North Disposal Area (SWMU 05)
3) South Disposal Area (SWMU 06)
4) Stewart Creek (SWMU 09)
5) Old Drum Storage Area (SWMU 10)
6) Stewart Creek Sediment Dredging Waste Pile (SWMU 11)

c) SWMUs WHICH HAVE HAD A RELEASE

1) Container Storage Area (SWMU 01)
2) Raw Material Storage Bldg. (SWMU 02)
3) North Disposal Area (SWMU 05)
4) South Disposal Area (SWMU 06)
5) Stewart Creek (SWMU 09)

EPA

a) RFI

1) Container Storage Area (SWMU 01)
2) Raw Material Storage Bldg. (SWMU 02)
3) Slag Landfill (SWMU 04)
4) North Disposal Area (SWMU 05)
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6) Product Waste Piles (SWMU 07)
7) Stewart Creek (SWMU 09)
8) Old Drum Storage Area (SWMU 10)
9) Stewart Creek Sediment Dredging Waste Pile (SWMU 11)

b) SWMUs WHICH A RFI IS NOT RECOMMENDED

1) Outside Raw Material Storage Bldg. (SWMU 03)
2) Wastewater Pretreatment Unit (SWMU 08)

B. ADDITIONAL COMMENTS:

1) Raw Material Storage Bldg. (SWMU 02)-Unit does not meet the definition of a tank. The Part B application lists the unit as a tank.

CONCUR: Lydia M. Boada Clista DATE: December 28, 1987